



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF SOLID WASTE AND EMERGENCY  
RESPONSE

April 12, 2010

**MEMORANDUM**

**SUBJECT:** National Remedy Review Board Recommendations for the Omega Chemical Corporation Superfund Site

**FROM:** Amy R. Legare, Chair  
National Remedy Review Board *AR Legare*

**TO:** Jane Diamond, Director  
Superfund Division, Region 9

**Purpose**

The National Remedy Review Board (the Board) has completed its review of the proposed cleanup action for the Omega Chemical Corporation Superfund Site in Los Angeles County, CA. This memorandum documents the Board's advisory recommendations.

**Context for Board Review**

The Administrator established the Board as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective decisions. The Board furthers these goals by providing a cross-regional, management-level, "real time" review of high cost proposed response actions prior to their being issued for public comment. The Board reviews all proposed cleanup actions that exceed its cost-based review criteria.

The Board review is intended to help control remedy costs and to promote both consistent and cost-effective decisions. The National Oil and Hazardous Substances Pollution Contingency Plan mandates, in addition to being protective, all remedies must be cost-effective. The Board will consider the nature of the site; risks posed by the site; regional, state, tribal and potentially responsible party opinions on proposed actions; the quality and reasonableness of the cost estimates; and any other relevant factors or program guidance in making our advisory recommendations. The overall goal of the review is to ensure sound decision-making consistent with current law, regulations, and guidance.

Generally, the Board makes the advisory recommendations to the appropriate regional division director. Then, the Region will include these recommendations in the administrative record for the site, typically before it issues the proposed cleanup plan for public comment. While the region is expected to give the Board's recommendations substantial weight, other important factors, such as subsequent public comment or technical analyses of response options, may influence the region's final remedy decision. The Board expects the regional division director to respond in writing to its recommendations within a reasonable period of time, noting in particular how the recommendations influenced the proposed cleanup decision, including any effect on the estimated cost of the action. Although the Board's recommendations are to be given substantial weight, the Board does not change the Agency's current delegations or alter in any way the public's role in site decisions; the region has the final decision-making authority

### **Overview of the Proposed Action**

EPA Region 9 proposes an interim remedy to contain the four and one-half mile contaminated groundwater plume comprising operable unit 2 (OU2) at the Omega Chemical Superfund site. The proposed action would prevent lateral and vertical spreading of the plume to areas that are not currently contaminated, and it would protect down-gradient drinking water wells from becoming further impacted. The containment remedy calls for extraction wells to be placed at 3 locations within the plume and operated at a combined pumping capacity of 2,000 gallons per minute (gpm). A centralized treatment plant would treat the extracted groundwater to drinking water standards and provide the water for drinking water end use through local water purveyors. The interim remedy will work in parallel to State-led cleanup actions occurring at most of the source areas of significantly contaminated soils and groundwater within the OU2 area. This approach provides for containment of the plume and still allows cleanup to move forward under the State-led actions for the "non-Omega" source areas.

The area of highly contaminated groundwater within the source area (OU1) is contained by an interim pump and treat system that began operation in July 2009, and remedial design/remedial action work on the soil remedy for OU1 (soil vapor extraction throughout the vadose zone) will begin in early 2010. Following implementation of the OU2 interim remedy, EPA will evaluate the feasibility of plume-wide cleanup of the contaminated aquifer. It is expected that the responsible parties will pay for the cleanup costs.

### **National Remedy Review Board Advisory Recommendations**

The Board reviewed the information package describing this proposal and discussed related issues with Region 9 staff Lynda Deschambault, Steve Berninger, and Harrison Karr on February 11, 2010. Lori Parnass, Juli Propes, and Steve Lavinger of California Department of Toxic Substances Control were also present via teleconference for the discussion. Based on this review and discussion, the Board offers the following comments:

#### **Risk**

In the package presented to the Board, the preferred alternative includes treatment of contaminated groundwater and supplying the treated groundwater for use as drinking water. Given the presence of multiple contaminants in the groundwater, the Board believes the Region should evaluate whether the cumulative risks associated with site-related contaminants in the treated groundwater fall within EPA's risk range. The treatment standards identified in Table 8 of the package should be modified, as necessary, if it is determined that the cumulative risk associated with exposure to site-related contaminants exceeds the acceptable risk range. The Board also notes that not all contaminants of concern, for example hexavalent chromium, were included in the list of contaminants for which treatment standards need to be developed.

### **Remedy Performance**

CERCLA §118 provides that the Agency "shall give a high priority" for purposes of taking or securing response action under §104 or §106 where the release of hazardous substances or pollutants or contaminants has contaminated a principal drinking water supply. The statute also provides broad response authority for the Agency to take early actions to reduce or control hazards. Therefore, the Board agrees with the Region's proposal to implement an early action via an interim record of decision at this site to protect the water supply. Since the plume is migrating and spreading, preventing additional migration at this time is warranted.

The Board notes that the source areas overlying the OU2 plume, most of which are being handled under State cleanup authority, have not been fully addressed. It appears that the State currently has not presented a comprehensive timeframe for fully controlling all the sources contributing contamination to the plume being addressed by this interim action.

Based on information presented to the Board, the design and operation of the preferred alternative and its costs are impacted by the contamination coming from the sources being addressed by the State. The Board encourages the Region to work with the State to develop a timeline for addressing continuing sources and to consider its options in ensuring that the sources be controlled as soon as possible.

Based on the information presented to the Board, the two northern area extraction wells identified as part of the preferred alternative appear to be located in close proximity to the McKesson and Angeles Chemical facilities. These two facilities appear to be significant sources that are contributing high concentrations of various chemicals to the OU2 plume. The State indicated that an existing groundwater extraction and treatment system is currently pumping 17-30 gpm at the McKesson facility. The Board recommends that the Region discuss with the State (i.e., Department of Toxic Substances Control and Regional Water Quality Control Board) the possibility of integrating the proposed alternative with the State-lead response (i.e., McKesson or other groundwater extraction system) in the plume area to optimize the overall effectiveness of the preferred containment alternative.

### **Cost**

Based on information presented to the Board, the Region's preferred alternative extracts and treats contaminated groundwater from multiple locations within the plume in order to achieve the remedial action objectives for containment. The groundwater alternative

recommended by the Region includes extraction at both the leading edge of the plume as well as downgradient of the two major hot spots (i.e., more highly contaminated groundwater zones) in the central and northern areas of the plume. All of the alternatives presented by the Region included extraction at the leading edge of the plume.

The Board recommends that the Region, as part of its development and evaluation of remedial alternatives, present additional information that clarifies the protectiveness achieved with the leading-edge pumping as opposed to pumping only at locations immediately downgradient of the two major hot spots. This information should include the cost increment associated with leading-edge pumping and the feasibility of relying on existing wellhead treatment units at production wells near the leading edge of the plume to prevent unacceptable exposure to contaminants in the OU2 plume and limit further spreading of the plume.

The Board also believes the Region should explore whether it's feasible to reduce or eliminate pumping from production wells that may otherwise impact the capture zone created by the preferred alternative's extraction wells. For example, the clean water produced by EPA's remedy could be used to offset a reduction in pumping from production wells that are currently capturing some of the OU2 plume.

The information presented to the Board did not include an alternative that would include *in situ* treatment of the high concentration areas of the plume. The Board suggests that the Region consider *in-situ* treatment (bio or chemical) of the high concentration areas of the plume in combination with the pump and treatment as a means of increasing the cost effectiveness of the preferred alternative.

We commend the Region's collaborative efforts in working with the Board and stakeholder groups at this site. We request that a draft response to these recommendations be included with the draft Proposed Plan when it is forwarded to the Office of Superfund Remediation and Technology Innovation Site Assessment & Remedy Decisions (SARD) Branch for review. The SARD Branch will work with both your staff and the Board to resolve any remaining issues prior to your release of the Record of Decision. Once your response is final and made part of the site's Administrative Record, a copy of this letter and your response will be posted on the Board's website (<http://www.epa.gov/superfund/programs/nrrb/>).

Thank you for your support and the support of your managers and staff in preparing for this review. Please call me at (703) 347-0124 should you have any questions.

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